Bandwidth Cost of Uncertainty: How Cognitive Resources are Depleted and How We Can Help Students Reclaim Them

Strategies for Reclaiming – or not losing – Bandwidth - Assessment

Strategy	Students	Faculty
Minimize uncertainty – syllabus and other messaging	No having to "figure out" what the teacher wants. Grading criteria clear. Safe, supportive, affirming learning environment.	No having to explain multiple times. Ease of grading with clear criteria. Less conflict/struggle and more learning.
Assure identity safety	Assure that every student (and instructor) belongs in all their identities.	Students who feel they belong are more able to learn and demonstrate their learning.
Minimize bandwidth stealers (especially during key assessments)	Provide food and water. Post affirming messages ("you can do it," "I have confidence in you") and images (successful people who represent identity groups of students). Decrease time pressure, if possible. Allow aids like calculators and notes (if their use does not interfere with assessment of knowledge, skill, ability, thinking processes, etc.)	Performance more authentically reflects student knowledge, skill, ability, thinking processes, etc. Focus scoring more precisely on the desired learning outcomes.
Closely align assessment tasks to stated learning outcome goals.	Less likely to use precious bandwidth on tasks (physical, cognitive, emotional) that are not important to the assessment of the outcome.	Eliminate time spent on scoring things that are only peripherally related to learning outcomes.
Allow multiple attempts at meeting learning outcome.	Growth mindset – learn from mistakes/errors, make adjustments, practice, and build on correct responses.	(Potentially lots more instructor time giving feedback.) Use undergraduate teaching assistants who work for credit or $$. Help assistants reflect on and articulate their learning from this role/job/experience.
Examine criteria for access to in- and out-of-classroom experiences and opportunities.	Student government leadership Study abroad Undergraduate research Internships Scholarships	Faculty can recommend students for these experiences based on potential and other demonstrated qualities outside of grades.